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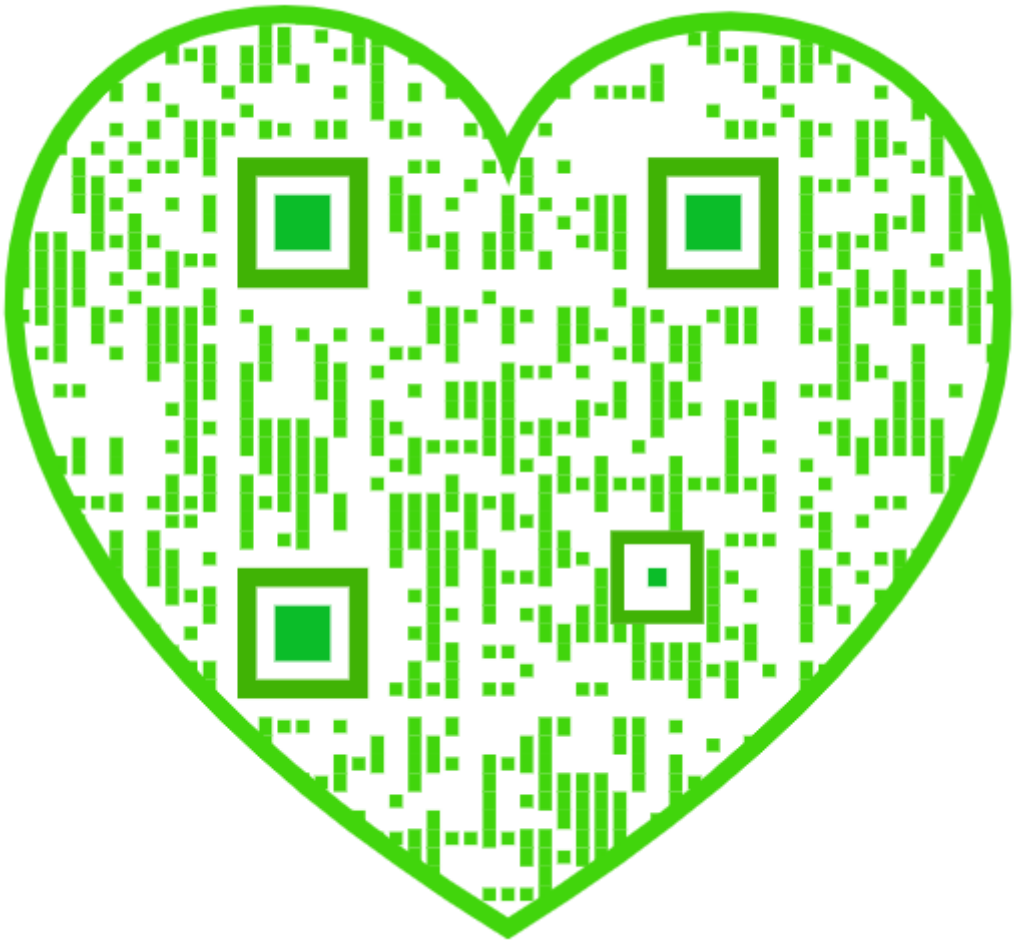

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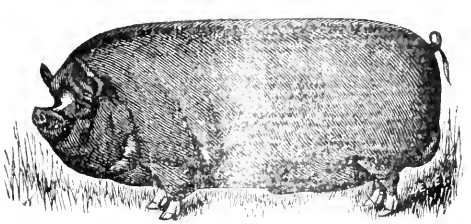

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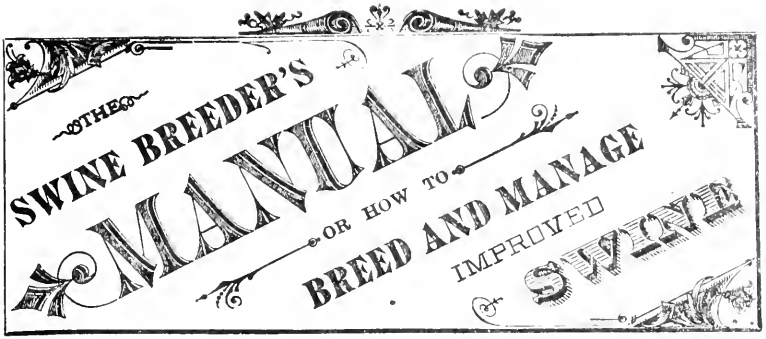

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10TH EDITION. SPRINGFIELD, ILLINOIS. 1883.

That "blood will tell," all thoughtful men agree,
But whether good or bad the story be
Which thus is told, depends entirely
Upon the blood itself—its quality.
If bad the blood, the story bad will be;
If good the blood, a story good we see.

INTRODUCTORY.

To the very general introduction of the improved breeds must be accredited the greatly increased use of pork products in all the civilized countries of the world; as without these, meats of such excellent quality and in such large amounts could not be supplied.

The revelations of the late United States census prove the rearing of hogs to be one of the foremost of our rural industries. The number reported in 1880 was nearly forty-eight millions; the rate of increase in ten years being 90 per cent. while that of horses was 45; of milch cows 39; of oxen 25; of other cattle 66, and of sheep only 24 per cent.

The meat consuming portions of mankind are interested in whatever affects the price or the quality of the vast supplies they receive from this country. The pork producers are equally concerned in everything affecting the demand and supply, and in whatever is suggestive of better methods of feeding and handling. Considering the importance of the business and the amount of capital invested, the growing interest in the breeding and management of improved swine is not surprising.

The Swine Breeder's Manual presents the subject in some of its details in a plain, brief, way. Even those who have never kept any other than common hogs may find in it much that will aid them in securing better results than are usually realized in the rearing of ordinary stock, and which may lead them to a trial for themselves of improved swine.

For matter pertaining to the registry of Berkshires see last pages of the Manual.

THE PIG AS A SOURCE OF PROFIT.

As a rule, the pig is reared for the money that is in him. We may talk about cheap meats for the millions as a necessity justifying the rearing of swine, and persuade ourselves that the man is excusable who at this day places before his fellow men, as an article of diet, that which in olden times was rejected by an honored people as unfit for human food. Little difference, however, does it make to the man thus excused, whether we think of him as a philanthropist or as one engaged in leading mankind astray, so long as he has a fair profit on the pigs he rears, or on the pork products he can place on the market. If there were no money for him in the breeding and rearing of hogs he would not engage in the business. We find, however, that to nearly every farmer and cottager in the land there is a profit in pig raising, and so long as such is the case, we may expect to see this among the leading industries in civilized America.

The rapidly growing interest in swine breeding in the United States is shown by the late census returns. According to these there were on farms, in June, 1880, 47,683,951 hogs, the rate of increase since 1870 being ninety per cent., while the rate of increase in population during the same time was only thirty per cent. The census returns show also that nearly two-thirds of the hogs in the United States in 1880 were in the five States of Iowa, Illinois, Missouri, Indiana, and Ohio. With facts and figures such as these at hand it is not surprising that the live-stock and agricultural papers, particularly those of the west, should devote more attention than formerly to swine husbandry, and that public records of breeding stock should be established and sustained; nor, on the other hand, that all parties interested in swine breeding should more eagerly avail themselves of every means calculated to aid in the successful prosecution of this work.

SELECTING STOCK.

While it is true that, as a rule, the pig is one of the most profitable of our domestic animals, it is also evident that the amount of profit he can be made to bring will be governed largely by the differences in methods of keeping and the intelligence or skill with which he is handled.

We find also that pigs are kept under the most varied circumstances, from those affecting the single sty-pig, for example, or the few gleaners about the farm yard, to the more extensive herds under the broader management known as swine husbandry. Owing to this great diversity of conditions to be taken into account, it would be impossible to give in few words definite teachings exactly suited to each case.

At the very outset—the selection of stock—there is a wide range for difference in choice. To produce pure-bred stock to be sold for breeding purposes and the improvement of common stock, may be the object in view with some. To rear and feed hogs for what they will bring on the market when fat may be the aim of others. Location, the amount of capital at command, and a man's own taste or disposition in such matters, must help determine which of these classes he will enter, or whether, as is often done, he will breed and rear hogs with both objects in view.

In founding a herd for the production of pure-bred stock, it is advisable that the novice buy only from some thoroughly reliable and experienced breeder; and that he leave to him the selection of the animals. If the man of whom we buy is really a breeder of experience, his knowledge of the points to be considered in the mating of stock will be valuable, and if he be reliable, it will be money well invested to pay him not only for good animals, but for the selection of such as are best suited for breeding together. It will be time and money saved to begin right, taking as a foundation, so far as available, the best stock and the ripest experience of those who have gone before. There will be time enough for experimenting, and the testing of new-born theories, after we are fairly in the field. Having once learned something of the business from observation and practice, we may, in later purchases, trust more to ourselves; but at the start it is certainly best to rely upon the judgment of a well-informed and trustworthy breeder and have him select for us a good boar and one or more sows—both sexes to be pure-bred animals.

PIGS FOR FATTENING.

If it is our purpose in rearing pigs that they shall be fattened and sold on the market for pork, it is not necessary that the dam shall be a pure-bred animal. Care in this regard is needed only in case of the sire. If he has come of a well-established pure-bred family of good feeding animals, his progeny from well-formed and vigorous common or grade sows are usually all that can be desired as rapid growers and good feeders. Such sows will generally prove quite as profitable for this purpose as the higher priced pure-bred animals. In fact, common sows are, with a good show of reason, often deemed the better suited for rearing pigs to be fattened than are the pure-bred sows—first cost being left out of the question altogether. They are believed to be more hardy, from the supposition that their digestive and vital organs are better developed.

Taking, however, the average of common sows throughout the country as compared with the average of pure-bred sows of our best approved strains, we are sure the latter are far superior in every desirable respect. Purity of breeding, judicious feeding, and a reasonable degree of protection from the severe colds of winter and the heats of summer, do not tend to impair constitutional vigor or render animals so treated any the less hardy. On the other hand, we believe that the terrible neglect and exposure to which common hogs are so often subjected would eventually cause the extermination of the whole porcine tribe, or at least render it as worthless to mankind as the wild boar of the forest, were these other agents not at work to counteract such a result. It is to the persistent efforts of intelligent breeders that we are to-day indebted for the immense quantities of the choicest pork products ever before known in the markets of the world. From their well-kept herds are constantly being drawn the animals needed to repair, in common herds, the losses occasioned by neglect in management and carlessness in breeding.

Where common hogs are most abundant, better opportunities are given for the selection of brood sows from among them; and thus it sometimes happens that the best of common stock comes to as compared, as breeders, with pure-bred stock—inferior though it be of its kind—and the conclusion reached that as a class pure-bred sows are not equal as breeders and sucklers to the common sows. As, however, the latter, taken as a whole, are excelled by the pure-bred, so also in proportion to difference of blood are the common sows surpasesd by what are known as grades; that is, such as are of common stock on one side and pure blood on the other. Hence, we have recommended for the rearing of fattening pigs the use of well-formed and vigorous common or grade sows.

THE BOAR AND HIS KEEPING.

Whether the pigs are intended for pork or for breeding purposes, the general care to be given the boar will be in either case about the same. From the time he is five months old he should be kept by himself. He should be provided with a comfortable shelter in an enclosure where he can have the exercise needed to keep him in a healthy and growing condition while young.

As a preventive of his becoming vicious or learning to break fences, it is best that a lot or other enclosure intervene between his own and that in which other hogs—particularly open sows—are allowed to run. If thus kept from the start, any ordinary fence will be sufficient. If by the neglect of this preventive he should acquire the habit of lifting gates and breaking fences, much trouble in restraining him may afterwards be expected. In case he becomes bad in this way, a strong, close fence will be needed to confine him, and besides he should be treated to one or two rings in his nose. A part of an apple orchard, where the trees are so well grown that he can not injure them, say half an acre or more, as convenience for fencing may allow, would make an excellent yard, affording both shade and pasturage. Where accommodations to this extent can not be had, and the boar must be kept in a dry lot, let it be a yard adjoining the kitchen garden, in order that he may be conveniently supplied every day during the growing season with weeds and refuse vegetables. Purslane (*Portulaca*), lamb's quarter (*Chenopodium*), pig weed (*Amarantus*) and other well-known garden pests, are excellent feed, and may as well be utilized in this way. He will be greatly benefited if sour milk and the best of the kitchen slops can be given him. He should, besides, have at all times a plentiful supply of good, fresh water. His daily allowance of soaked oats or corn should be governed in amount by the quantity and richness of the supplies above mentioned, bearing in mind that he is now to be fed with a view to the most rapid growth consistent with sound health and the best possible physical development, rather than to be made fat. He should be fed all he will eat until a year old; but this can not be done, and he kept in the thrifty growing condition to be desired, unless special care be taken in the manner of feeding; the kind as well as the quantity of feed being regulated by or changed according to the changes of season.

The young boar should not be put to service until he is eight months old. At this age it will be no injury to him if allowed to serve one sow a week,

although he will get better pigs when a year or more old than at a younger age. When ten months old he may serve two sows each week, and when a year old, if properly cared for to that time, one every other day. When eighteen months old and over he may safely be allowed one sow a day, but must, in the meantime and when in use, be well and regularly fed. As a rule, the boar is needed only for a month or two in the fall and again for several weeks in the spring. As it is usually desirable to have the sows farrow as nearly as possible at the same time, the temptation is to crowd the service of the boar into the shortest time possible. When only a few sows are kept little harm can result from this, but in large herds the advantage gained by having the little pigs all of nearly one age, is at the expense of strong, healthy litters, that would mature to the best advantage, whether as feeding hogs or as breeders.

When a sow is to be served she should be turned into the lot with the boar, as it is usually an easier matter to drive the sow away than to return the boar to his place. It is the general opinion among practical men that one service only should be allowed. Two or more are not believed to be any more certain to result in numerous and healthy progeny than one, but are considered a useless expenditure of the strength and vigor of the boar.

THE SOW AT FARROWING.

At no other time of the year more than at the close of winter and during the early part of the spring will it pay to give special attention to the brood-sows. A litter of pigs lost now cannot be replaced until next summer, and even then only with young things too late to be fattened until the following year. Early spring pigs usually make the best returns, whether intended for fattening or to be sold as breeders. Owing, however, to the absence of grass or other succulent feed at this season, sows will not usually do well unless special care be taken in their feeding and management.

To each sow there should be assigned a lot or pen a week or two before farrowing. This is the almost universal advice of all who have undertaken to tell what they know about raising pigs. Occasionally some one has a chance case to relate where a sow, having escaped her keeper and chosen her own place for farrowing, has done so remarkably well that we are admonished thereby to "let nature take its course." Suppose we do, and get us back to the old-time wild-hog course of management, or, rather, of no management at all? Would we be satisfied with the results? We think not; for of the wild-hog in "Youatt & Martin" we read: "The female produces but one litter in the year, and her litters are much smaller in number than those of the domestic pig." Sidney says: "The sow breeds once a year, only, receives the boar in January or February, litters in May or Jnne—five, six, sometimes eight, or, rarely more—suckles them for three or four months, and does not allow them to leave her until two or three years old." In these days a sow is expected to rear two litters a year, and to produce from nine to fifteen each time. This improvement of old "Nature" is the result of man's attendance and care, without which no advances of the kind would have been made, nor would they now be maintained.

Sows that farrow in mild weather may, with less risk, be left to themselves, but even they will be better fed and taken care of, for if penned at some convenient place where they can be found regularly, and where the young pigs can afterwards be cared for, and are not liable to be run over or robbed of their feed by older hogs.

If sows in farrow are fed exclusively on dry corn, they are apt to become so fat that at farrowing time they are heavy and awkward, as well as feverish and cross, and, for these reasons, liable to destroy their pigs, either by overlaying or by devouring them. If fed liberally for several weeks on wheat bran and ship-stuff, or middlings, scalded, and then allowed to stand until only warm, very little corn will be required. The bowels will be kept open and a better supply of milk will be afforded the young pigs when they come.

After farrowing, the feeding of bran and ship stuff should be continued for some ten days or two weeks. The richness of the feed may then be gradually increased. Not until the pigs are three or four weeks old will they begin to draw heavily on the sow for supplies. By this time, however, they may be taught to eat from a trough by themselves. This will put them along rapidly. If, at the same time, the sow be well and regularly fed on nutritious milk-producing feed, both she and the pigs will do well, until the latter are old enough to be weaned.

CARE OF THE YOUNG PIGS.

In order to succeed well in rearing pigs, special care, in many respects, is needed. One who has no disposition to look after minor details in the management of the sow and her litter, had better keep in the background and allow some trusty person to take his place, or else not attempt pig rearing at all. From the time the pigs are farrowed until they are weaned, they must have the best care that can be given them. This, by no means, consists in having an attendant with them all the time, nor in petting and handling them, nor in constantly feeding and fussing with them. Many a fine litter has been reduced or lost altogether by the well-intended but misplaced kindness of the keeper. They do, however, require to have a good, clean pen, where they can sleep in comfort without exposure to the excesses of cold or heat; dry, moderately warm and ventilated in winter, cool and airy in summer. In such quarters the sow should have been kept for several weeks before farrowing. Here the pigs will afterwards learn to resort, and here they should be fed as soon as they have learned to eat, at regular hours during the day, so long as they are with the sow. At weaning time the sow may be taken away and the pigs will miss her less than if they themselves are placed in new quarters and compelled to rely entirely on the feed provided for them.

When a sow has more pigs than she has teats, the most unpromising should be sacrificed for the good of the others, for each youngster will claim a particular teat as his own, and will fight valiantly for its possession. Whatever number of teats a sow may have, she will soon cease to give milk from all except those in use. If, on the other hand, the pigs are in excess, the weaker ones will suffer and eventually drop off altogether, unless fed in some

other way. In case a number of sows have littered about the same time, some having more than they can suckle and others less than they might rear, the pigs may be so divided among them as to allow each a fair chance of fulfilling a useful destiny. And herein will be needed the patience of the manager. Instead of only two parties to the bargain, we have three to be consulted in such a case. The sow will not usually admit, without protest, a new comer to her little family; the new pig would naturally prefer to remain with his own fellows; worse than all, the pigs to whom the little stranger is introduced are very sure to give him anything but a kindly welcome. These changes should therefore be made at once, and at night, while the pigs are quite young. The sows, with their respective litters, should be placed out of hearing of each other, and the little pigs so confined for a day or two that they may not stray away. Care should be taken also to so mark them that their parentage may not be forgotten.

Twelve pigs are as many as any sow ought to be required to raise at one time. A young sow with her first litter may be considered as doing well to bring up six or eight; older sows will rear eight or ten profitably. Moderate-sized litters usually prove the most satisfactory. The pigs make a better growth and the sow is less worried and exhausted. When, however, the pigs are early taught to eat, and it is practicable to give them plentiful supplies of milk and other good feed, so that they may depend less on the sow for their support, larger litters are desirable. If extra feed is thus given to help them along, the same kind should be given the sow; for if she have one diet and the pigs another, the latter will almost surely be taken with the scours and thus thrown into bad condition, from which they may be a long time in recovering. Breeders often boast of the wonderful prolificacy of their brood-sows, but they seldom afterwards report results in avoirdupois from these large litters. Some, however, are glad to have from twelve to fifteen or more come in a litter in order that they may cull out the weak ones and thereby have the balance grow up strong and more even in size. But we would rather have a less number, and those of uniform size, to start with, and we believe that this uniformity is more certain to occur in the moderate-sized litters than in those where the pigs are remarkably numerous.

THE PIGS AT WEANING TIME.

The age at which the pigs should be weaned will vary from eight to twelve weeks, according to the season, the age or condition of the dam and the time at which it is desired she shall farrow again. Whether it is best to pen the sow away from the pigs or to confine the latter at weaning time will also depend on circumstances. Usually it is better for the pigs, that they be allowed to run out as they had before. For some reasons this is better also for the sow, as by having her penned alone her diet can be more readily controlled so as to the sooner lessen the flow of milk. But on the other hand, young pigs when thus turned loose sometimes display a wonderful amount of enterprise and are provokingly in the way at times and places quite unexpected. Search for their dam leads them to try holes in fences which they would not otherwise have thought of passing through, and thus before we are aware they have the run of the entire farm.

Ground corn, wheat bran and shipstuff, or middlings, as the latter is sometimes called, in equal parts, make good feed for pigs at this time. Ground oats, when it can be had, in place of the wheat bran, would be an improvement. All should be mixed, with a little salt added, then scalded with hot water and left to stand until cool enough to feed. If the conveniences for scalding or cooking cannot be had the feed may be soaked with water for a day or more, according to the weather—that is, just long enough for it to become slightly sour. If the pigs can have skimmed milk besides it will be all the better for them. This in abundance, with ground corn in moderation, will bring them along finely. Corn alone would make them too fat and would not furnish the growth producing material needed at this age, and which is well supplied by the skimmed milk. When, however, milk cannot be had, the bran and shipstuff answer for a substitute. Oil meal is also recommended as a good addition to the rations. So also pea-meal and cooked potatoes.

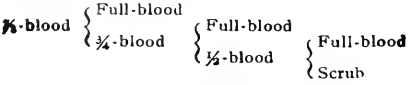
Although it is often common to look upon pigs as ravenous young gluttons ready to devour almost anything, and in fabulous quantities, if unrestrained, yet, in reality their stomachs are about as easily disordered by improper diet as are those of any other animals. To keep them growing right along without injury at this time, no sudden change should be made in the kind of feed given them. That which they are expected to live upon a week after they are taken from the dam, they should have become accustomed to eat a week before being taken away. It is important the pigs be fed often, that is, not less than five times a day for the first week or two, but each time so much only as they will eat up clean.

While with the dam their food supplies were taken in small amounts and at short intervals, and now when being weaned they should not be allowed to become unduly hungry. A pig's stomach is not large enough to take in at one time more good wholesome food than will last him for three or four hours. If from neglect or other cause young pigs get very hungry, they are apt at the next feeding to eat so fast and so greedily as to sicken and gag before they have really taken as much as they ought to have. When older they may be fed less frequently, particularly if they have the run of a good pasture or clover lot.

Much in the details of management at this age will depend upon the time of the year and the surroundings under which the pigs are reared. It would hardly be possible to produce in writing a formula of management so well calculated to bring successful results, as must be the unwritten, but experience-bought knowledge and skill of one who takes delight in rearing and feeding young stock. We may be accused of laziness because, when we throw a basket of weeds from the garden into the adjoining yard for the pig, we stop in the shade to see which they like the best, instead of rushing off through the hot sun for another supply. But it is well not only to thus inform ourselves as to the likes and dislikes of the animals under our care, but to notice also how they thrive from day to day. If we can not afford to look after them in this way or have some faithful person do it for us, we can not afford to keep improved stock at all. A watchful eye and a thoughtful mind are needed here as well as in any other business where success is to be reached.

THE SIRE IS HALF THE HERD.

The importance of using only full-bloods as sires is often insisted on by writers on the subject of breeding. The following diagram may assist parties of less experience to a better understanding of the matter and enable them to see at a glance the results to be expected:



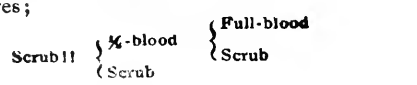
On the right we have the pair with which we are supposed to begin breeding, viz: a full-blood male and a scrub female.

To the left of these we have their produce, that is, a half-blood female, which we breed to another full-blood male, the result being a ¾-blood female. This in turn bred to a full-blood male gives us on the left a ⅞-blood female. She, if bred to a full-blood male, would give a 15-16, and by continuing the same course we would next have a 31-32. Granting that the influ- of the sire and dam are equal, and that half the blood of each is represented in the progeny, it is evident that a sire will give half the character to the produce of the herd in which he is alone used. Practically, however, the influence of well-bred sires usually predominates over that of grade dams, so that in fact the improvement is generally greater than would be inferred from the figures here given.

Breeding in the manner shown might be continued indefinitely until no trace of the scrub stock could be detected. Suppose farmers and breeders everywhere should use only full-blood sires, what a rapid advance would be made in the improvement of our domestic animals. But farmers do not all do this, and perhaps they never will. On the contrary they persist in using half-bloods and high-grades as sires.

It often happens that a few crosses only, with full-blood sires on scrub stock, will result in grade progeny which, to all appearance, are as good and pure-bred as those of very many more crosses. When put to the test however as breeders, they almost invariably show their own low origin in their progeny. The trace of scrub stock which could in no other way be detected, is generally revealed by the inferior stock produced.

The following diagram shows the usual result of the common method of using half-blood sires;



First the farmer buys a full-blood male which he breeds to a scrub female. He selects from their progeny a male, which is of course a half-blood,

and this he breeds to another scrub female. He gets as the result something more like scrub stock than any improvement he had expected, so that instead of having made any progress he finds himself back at his starting point. All he has made by the purchase of a full-blood male is, that in the first cross he got some extra fine feeding animals. His mistake was in selecting a male from these for breeding purposes. Had he retained one or more of the best females and bred them to a new full-blood male, he would have been on the advance as shown by the first diagram.

So long as farmers persist in using half-bloods and grades as sires, so long will they be pulling down almost as fast as professional and amateur breeders can build up.

SELECTING AND REARING BROOD SOWS.

A brood sow should be a good milker. However good in other respects, if deficient in this, she should hardly be retained as a breeder. An abundance of milk for the first eight or ten weeks of their existence is the best preparation young pigs can have to fit them for profitable growth in after life. It is not always possible to decide with certainty whether or not a young sow will prove to be a good milker, but as with cows, so with pigs, we may learn from observation and trial to know in some degree, judging from their general appearance, what to expect. Much will depend upon the dam and grand-dam in this regard. Milking qualities in swine are as surely transmissible to progeny as in cattle. Thus it is as true of swine as of cattle that this trait may be greatly improved by retaining only good milkers for breeders, as well as by feeding them when young with a view to their development as milk producers rather than as fat producers. For this reason spring and early summer litters are usually the best from which to select young brood sows. They can be kept through the summer almost entirely on grass, which if abundant and in variety, will make them grow nicely, and at the same time the exercise required in grazing will keep them in good health and thrift. By the time the cold weather comes on and corn is to be fed, they will have become nearly old and large enough for service. But even after this, continued care should be taken that too much corn or other fat-producing feed should not be given them. We must, however, bear in mind that at this period all animals naturally lay up fat which afterwards goes to enrich the milk. Hence, while they should not be allowed to become over-fat, they should yet be so fed as to supply this demand of nature, and to retain the general health and vigor of the system.

When they have dropped their first litter the most they will need for the first five or eight days will be cooling drinks and very little rich feed. Wheat bran scalded and then thinned with cold water, to which may be added a handful of shipstuff or middling, may be given. In ten days or two weeks the richness of the feed may be gradually increased, great care being taken however both as to the quality and quantity that these changes may not injure the health of the sow, or so affect her milk as to cause scours in the pigs. It is a very common mistake in feeding sows having young pigs to give them too much strong feed when the pigs are quite young.

It is not until the pigs are some taree or four weeks old that they really begin to tax the sow heavily. Then it is that the sow should be liberally and regularly fed on good nutritious milk-producing feed, and at the same time the young pigs should be taught to eat by themselves at a trough out of the reach of the sow. If thus managed, both sow and pigs are benefited. The strength of the former is kept up, and her disposition to produce an abundance of good rich milk so encouraged as to fix this as one of the best traits of her nature; while the pigs, by the extra feed given them, make a corresponding rapid growth, and that at a comparatively small cost.

Young sows brought up in the manner suggested, and thus cared for with their first litters, may be depended on to do as well or better with their next, provided they have anything like fair treatment. In case, however, a sow fails to prove herself a good milker, after a fair trial, she should be replaced by one of better promise, unless for some special purpose it is thought best to retain her.

WHY BERKSHIRES ARE PREFERRED.

They have been known for a far greater length of time than any other breed of swine now claiming attention. They are more perfectly adapted to universal use than any other. They are more widely disseminated throughout the world and are reared in larger numbers in the great pork-producing regions than any other breed. As the Berkshire usually heads the list, he also forms the standard of comparison. The height of one man's ambition is to produce a hog that is heavier than the Berkshire; of another, one that will feed as well: or one that is as prolific and hardy; or that will graze as well; or that will produce as fine hams and bacon; or in some one or more ways resemble the Berkshire—the pattern hog—the first that fills the eye of nearly every man who turns his attention to the rearing of swine. If popularity is claimed for any other breed, it is in comparison with that of the Berkshire. If size is mentioned it is as larger or smaller than the Berkshire. If color, it is said to resemble or to differ from, as the case may be, the Berkshire. If form of head or body, carrriage of ear or other points are spoken of, the comparison in each case is with the Berkshire. And finally, in noting the composition of some of the newer breeds, the source whence their best blood and most praiseworthy points are derived is usually said to be the Berkshire.

THE BERKSHIRE FOR GENERAL PURPOSES.

Of all our breeds of swine, I do not hesitate to place the Berkshire in the very front rank for general purposes, as a cross from him on any other always results in an improvement, while he is sure to be deteriorated if any other breed is used upon him Then for the particular purpose of obtaining extra choice hams and shoulders for smoking, and side pieces for bacon, of a tender, lean, juicy quality, no other breed of swine within my knowledge can be compared to him. So highly esteemed had the Berkshire become in our country, and so great the wealth and prosperity, especially in the wide pork regions of the West, that was certain to follow from keeping up his peculiar good qualities and perpetuating them in purity, that on February 25th, 1875, an associaton of enterprising and enlightened breeders

was formed at Springfield, Illinois, to more fully insure this desideratum. It took the name of the American Berkshire Association, was incorporated March 18th, 1879, and fixed its headquarters at Springfield, Illinois, electing a president and other necessary officers, * * * The Association proceeded to get up a Herd Book for the record of pedigrees, the first volume of which was published in May, 1876. This has been succeeded by Volumes II., III and IV., and with these are incorporated in their introductions, valuable prize essays of the history of Berkshires, the best method of breeding and rearing, as also that of the prevention of disease and of treating it whenever happening to occur.—A. B. Allen *in Rural New-Yorker.*

THE IMPROVED BERKSHIRES

Of the present day are a well-defined breed, possessing in an eminent degree definite and valuable qualities, and may be described as follows: Body color, black, with smooth, pliable, plum-colored skin: hair rather fine, soft, and thick; feet and tip of tail white, with dash of white in face, and not unfrequently the nose white, as also some white on jowl; forehead and face broad, the latter dished, with eyes rather large and very clear, and snout short; ears of medium size, thin and very soft, and carried rather upright; neck short, broad on top, with jowl large and full; shoulders broad on top, and deep through the chest; back broad; sides deep, and nearly straight on bottom line; hams large, reaching well forward on back and down on hock, well rounded and deep through, causing the legs to stand well apart; these, as well as the forelegs, short and strong, and standing well on the toes; tail tapering and rather fine, and set well up. In general form, a modern well-bred Berkshire, in good condition, is symmetrical throughout, attractive in appearance, and recognized at once as an animal of more than ordinary worth.

IMPROVING COMMON SWINE.

For the purpose of improving the common swine of the country, no other hog can be used to better advantage, or with greater certainty of good results than the Berkshire. Having descended from so long a line of pure-bred ancestors, he possesses in an unrivaled degree the power to stamp upon his progeny his own excellencies of form and feeding capacity, as well as vigor of constitution, which includes ability to resist the encroachments of disease. Hence he is in almost constant use for the improvement of common hogs.

THE MOST SALEABLE ANIMALS.

Breeders who have taken the care to keep their herds in good condition the past year, and have had their stock recorded, are already seeing the advantages of such a course. As a rule now beginners enquire for and purchase "herd-book" animals. They aim and start out right in this important respect at least. Care and judgment in other respects are likewise needed, but in these times no amount of ability and tact as a breeder can compensate for a willful neglect of the almost universal desire on the part of buyers that they shall be reliably informed as to the manner in which the animals they purchase were bred.

SHALL WE RING THE HOGS?

Experience teaches that the ringing of hogs when properly done, and done at the right time is an advisable measure. The assertion sometimes made that hogs, if habitually allowed to run at large, will not injure meadows or pastures by rooting when turned upon them, cannot be relied on. They may, for awhile, behave themselves very well, and roam a pasture for weeks, scarcely turning a sod. Seeing this the owner is satisfied in his own mind that rings may be dispensed with, when soon after, having ceased to watch them, the rascals from some unaccountable reason begin rooting and in a short time will have done more damage, times over, than it would have cost to ring them. Such experience as this leads to the conclusion that the safest way is to use the rings whenever hogs are allowed to range where their rooting would be an injury.

The continuous use of rings the year round or their use on swine of all ages and sizes is not advised. In the spring of the year they are generally the most needed. If hogs that were treated to rings in the spring are still on hand in the fall, it is usually best to remove the rings, particularly if the hogs are turned on the mast or are expected to follow cattle in feed lots or stalk fields.

It sometimes happens that a valuable brood sow acquires such bad habits as lifting gates or breaking fences. A couple of rings in the nose of such an animal will put her on good behavior the most effectually of anything ever tried. So also a sow that is vicious or cross to other hogs; a good ring in her nose will prove to be a wonderful tamer. A stock boar, if inclined to be unruly should be treated the same way.

Of the different kinds of patent hog rings before the public, it may be said they are all good enough, some, perhaps, being more easily applied and lasting longer than others. Of those not patented a new horse-shoe nail or a piece of common No. 12 wire makes a very good and cheap ring, and one readily used with the help of a double-edged awl or common punch for making the holes in the rim of the snout and a pair of small pinchers for closing the rings after being inserted.

GUARDING AGAINST DISEASE.

When men, in the handling of swine, fail to observe the most simple and common sense rules of health and run after patent medicines and advertised specifics for the treatment of hog diseases, they usually get just what they deserve—disappointment and loss.

The man whose stock is already dying, can, however, in a measure, be excused for this, even when there is reason to believe his losses come from filth and his neglect in the care of his stock. He perhaps knows no better, and seeing death's work about him, is ready to invest in any highly recommended nostrum that is offered, saying "They are dying anyhow, and the proposed remedy can do no harm." There is, therefore, some excuse for the man thus situated; but for any man of ordinary intelligence, who knows that good air, good feed, good water and proper exercise are the best guaranties of good health, it seems utterly inexcusable that he should be led

into the false belief that when his stock is well some specific remedy will assist in fortifying it against any particular disease which may be abroad in the land. The truth is, there is no drug or medical preparation that can be given stock when in good health, that will protect it from disease, and all money spent for such is clear loss. In case an animal is actually attacked by disease, some proved or well recommended remedy may be used; that which in a state of health would have been poison to the system may in this case be an antidote for the poison of disease already there. It is a mere chance, however, that any patent medicine or advertised cure- all will prove effective of good. These are usually gotten up on the general average principle, after the manner of determining insurance tables, though never with anything like the accuracy found in the latter.

The only certainty about well advertised medical discoveries and patent remedies is that they will find buyers in every community. No sooner does one prove a failure than another is found ready to take its place, and a confiding public just as ready to give it a trial. It would seem that the wonderful curative powers claimed for some of these would arouse suspicions of their worthlessness, but instead of this men are ever found ready to buy and use them as preventives of disease. Money spent in this way is worse than squandered, for anything thus used injures the blood and is therefore poison to the system, which by the presence of such poison is more or less weakened and thereby made more liable to the prevailing malady against which we would guard. Hence, spend no money for specifics with which to dose your hogs, but if need be for disinfectants and in providing clean quarters and wholesome feed whereby they may be kept in a thriving condition. This will prove the best safe-guard against disease.

WELL FED AND WELL BRED.

To a great extent, much of the success in the handling of swine depends on the manner of feeding. A good illustration of this may be seen in the following statement contrasting the management in two herds within half a day's drive the one of the other:

"A——— was an old hand at the business of breeding Berkshires, who had long been handling some of the best strains in the country, and had in the course of years established a strain of his own, and prided himself on the certainty with which it bred pigs of uniform excellence.

"A few years ago he selected for his own use two choice sow pigs from a litter of this strain. One of these--the second choice—he afterwards sold, when in farrow, to a friend in an adjoining county. The new owner, a novice in the business, allowed the breeder of whom he bought, to select a choice sow pig from the litter, and to breed her when of proper age to one of his own boars. This sow, one of the largest well formed Berkshires I ever saw, now has at her side a litter of as pretty pigs as any one could wish so have. They, their dam and their grand-dam, all show that they 'have the stock in them,' and are consequently a credit to the mind that directed the breeding and to their owner who has given them such good care. The latter having but few pigs to look after has always fed these well, giving them good pasture

in summer and comfortable quarters during winter. In this case the two essentials to success were complied with, viz.: good breeding and good feeding, the end being the very satisfactory results now seen.

"To prove how very important a part the feeding had in this instance I need only say that the best of the two sows—the one kept by the breeder at the time he concluded to part with the second choice—cannot now, with her progeny, begin to compare with her sister and her progeny in size and form and feeding capacity. Apparently she was never very well taken care of, having been allowed to produce two litters a year, and left to rear these as best she could without being well fed herself, or her pigs being early taught to eat from a trough so as to hasten their growth and at the same time spare their dam. Perhaps one reason for this lack of attention may have been that the owner of this neglected sow had more on hand than he could properly take care of; consequently a part had to suffer, and as it happened, this branch of the strain was slighted. Fortunately, however, the other branch falling into other hands and receiving better treatment, has fully sustained the reputation of the stock, and now stands a living illustration of the truth that good breeding must be backed with good feeding."

While it is true, as shown by the above, that proper care and good feeding are essential to success in the management of swine, it must not be forgotten that without good stock at bottom, the most approved methods of feeding cannot avail in the production of the best results. The finest hams and bacon, at the least cost to the producer, are to be had only by the use of well bred animals.

QUALITY RATHER THAN QUANTITY.

An over production of any given article of trade or commerce usually causes a reduction in price. Hence those who count their wealth by the quantity standard are not infrequently sadly disappointed when at the final reckoning of the profits for the season they find them much less than they had expected. It is well therefore that all who would keep on the safe side for success should bear in mind that although the demand for quantity may be more than supplied, that for quality is seldom if ever fully met. As a rule the better grades of manufactured articles, as well as live stock, always meet with ready sale. To produce the best animals for the purpose they are designed, should be the aim of every true breeder. He who succeeds in this will scarcely fail of a two-fold reward—the satisfaction of seeing improved stock about him, and of receiving good prices for what he may have to sell.

STUDY THE STANDARD OF EXCELLENCE.

The Standard of Excellence as adopted by the American Berkshire Association, and published in Volume II. of the RECORD, was the result of the combined judgments of the leading breeders of Berkshire swine. Beginners in Berkshire breeding, who wish to start right and secure that uniform excellence in their stock which always betokens the skillful breeder, should study the Standard. When they can show hogs that fill its requirements perfectly, they will find themselves rated among the foremost breeders of the day.

IN-BREEDING AND CLOSE-BREEDING.

In discussing questions of breeding much has been written of no practical value because of the loose application of terms used in describing the different kinds of breeding. For example, one who has seen poor results from the breeding of a sire to his own offspring, proceeds to condemn the practice of in-breeding—so called. Another, who has been more fortunate in the mating of a sire to his get, argues that close-breeding is safe and advantageous. A third, who has met with disappointment in the breeding together of pigs of the same litter, expresses himself as not a believer in close-breeding—so called,—while a fourth, having made "a capital hit" by such a course, concludes that in-breeding is not so bad as he had been led to suppose.

From the indiscriminate use made in these statements of the terms *in-breeding* and *close-breeding*, one would suppose they were synonymous; but such is not the case, although writers on stock-breeding have very generally used them as if they had a common meaning. In-breeding is the mating together of animals of the same parentage, that is, brother and sister. Close-breeding is the mating together of parent and offspring. That two such distinct methods of breeding should not be designated by synonymous terms is a matter worthy of some consideration.

If two animals are bred together we are supposed to have in the offspring a combination of half the blood or characteristics of each. If the sire and dam are of different parentage, dissimilar blood is brought together in the offspring, making what is generally known as a direct cross. If sire and dam are of the same parentage, the same blood is reproduced. This is what we understand to be in-breeding, or as Noah Webster has it, "breeding in-and-in," and which in former editions of his "Unabridged" is defined as "breeding from animals of the same parentage." In the direct cross we change for better or worse, as the most prepotent parent is good or bad, and upon the judgment of the breeder in this matter depends in this case his success.

By breeding in-and-in no change of blood is made, therefore no change in the character of the offspring would ordinarily be expected. Experience, however, has shown that in the most of our domestic animals changes do occur; though not so much in form or family likeness as in the general weakening of constitutional vigor. Hence this course is usually considered objectionable.

Besides the two well defined methods above mentioned we have a third, viz.: close-breeding, or the breeding of parent with offspring. Here we have represented in the progeny in the second generation, three-fourths of the blood of one grand parent and one-fourth of the blood of the other. The chances in this case for variation in character are evidently greater than by the in-breeding method; the proportions of original blood being three to one. Here, too, as in the breeding together of animals of different parentage, the careful and intelligent breeder finds opportunity for the trial of his skill.

When we come to inquire more particularly into the details of any given instance of breeding from animals nearly related, we will very generally find that where success has been the result, the case has been one of close-breeding. That is, breeding of parent with offspring. For example, a correspondent mentions a plain case of close-breeding, although he calls it in-breeding. He says; "In-breeding has been strongly condemned by most writers, although I have always practiced it in both cattle and sheep. I now have a heifer seven months old, not easily excelled, at least in this section, and the dam and sire were mother and son. I bred in that way for the reason that he was the best bull to be found, and his sire was from the same cow. Now that is certainly in-breeding, and the stock is fine throughout," Here then is a heifer said to be "not easily excelled," and her excellence credited to in-breeding, when the truth of the matter is she excels because she has seven-eighths of the blood of her great grand dam, an animal no doubt of more than ordinary excellence. Had this heifer really been an in-bred animal, no such accumulation of the blood of one ancestor in three generations could have occurred.

Close-breeding is by no means unusual, it being often resorted to where permanence of type is desired. The general course is to breed sire to his own get, as in the case of Othello's Sallie 2078, Vol. II. A. B. R., bred by Russell Sanwick. She was got by Othello 259 and out of Sallie VIII. 2060; she also got by Othello 259. Thus 2078 would be three-fourths Othello blood.

That there is practically a very great difference between in-breeding and close-breeding there can be no doubt. Why, therefore, should not each method be known by a term readily distinguished from the other. Would not reports of success or failure in either convey more information, and thereby be of more practical value to readers? If it is worth while to attempt growing two blades of grass where only one now grows, may it not be well to so formulate our knowledge that expression may be given to our views and experiences in plain and definite language? In-breeding is a short way of saying "breeding from animals of the same parentage." Close-breeding is a short expression for "breeding of parent with offspring."

BERKSHIRE NOSES.

WHICH ARE PREFERABLE, LONG OR SHORT?

"My impression is that short snouts do not belong to Berkshires, and in the endeavor to obtain them, too much fineness, loss of size, and want of constitution are the results. Am I right?"

So asks a correspondent, and I answer him: "Yes, if by short snouts you mean the turned-up pug-noses characteristic of the Small White Yorkshires." By way of explanation, it may be said that such noses will do for sty pigs that are expected to scoop their feed from a trough, and then lay in the shade until the next feeding time. Pigs of this kind have their use

and are profitable to rear in many places where the surroundings are suitable. Berkshires, however, are of a different class. Their glory is in their fitness for the production of the choicest of smoked bacon, and the best of hams and shoulders, such as can be made only from well-marbled meats; and these, be it remembered, do not come from the slow, quiet, fat-accumulating breeds, but from those of a more active nature, prompting them to exercise, whereby muscle is developed, and at the same time a reasonable degree of fatness is acquired.

It is this active nature in Berkshires which commends them to cattle feeders and farmers generally. When turned into stalk-fields or feeding lots with cattle there is little danger of their being trampled or otherwise injured; or, if allowed a good clover pasture, they will thrive and get fat on it alone, while other breeds of less muscular power will lie in the shade and grow thin, unless corn or other good feed is carried to them. Moreover, the best Berkshires grow to a larger size than is usual with the pug-nosed pigs. The wild hog of Europe is said to attain the weight, when full grown, of from four to six hundred pounds, and the meat is usually very fine and palatable, but the aptitude to fatten is inferior.

The excellent meat of the wild hog is doubtless due to his habits of life, which induce great muscular development. He roams the forest, and subsists on beech and chestnuts, or acorns and roots of various kinds. In securing these he must needs use his snout, and this, as might be expected, is well enough developed to meet the requirements of the case.

The modern Berkshires of the best approved strains are of large size, and possess, with due allowance for domestication, the high vitality and active habits of the wild hog, combined with the good digestive and assimilating powers which characterize all improved breeds. The only valuable improvements made in Berkshires during the last 100 years or more have been those obtained by judicious selections of breeding stock, and improved methods of feeding and management. Wherever attempts have been made to improve by crossing with the Neapolitan or the Essex, the results have been a loss of constitutional vigor and hardiness, and that fine quality of flesh, tender, juicy, and nicely marbled with fat and lean, from which are manufactured the best hams and shoulders known in the markets of the world.

In the pug-nosed pigs we see the tendency to excessive fatness, which is not desirable, unless they are intended for making into salt fat pork for barreling. If this be the object of their keeping, the extreme fattening propensity and the accompanying very quiet disposition are not objectionable.

In speaking thus in favor of long snouts in Berkshires, it is not intended that one animal should be preferred before another, apparently equal in other respects, because of his snout being longer. As above suggested, improvements upon the original Berkshires of many years ago have been made by selection and feeding. In feeding, for example, we now find the best managed herds well supplied with clover and rich grasses, as well as fed on various grains, roots, and mixed slops, as convenience may suggest. A long snout

for rooting among forest leaves and grubbing roots is no longer needed. Hence, other points being equal, we select, as breeders, such as when ready for market will make less offal in this regard. But even in modifying the breed by selection, we may go to the extreme of unfitting it for that degree of active life found necessary for a proper muscular development, the very feature for which the breed is so highly prized,

We admire in a Berkshire a broad forehead and face, the latter somewhat dished, and the snout rather short; but we do not particularly object to one, good in other respects, that has a snout a trifle longer than is often seen in the pictures, particularly if the jowl and underline are good. We would much prefer such a pig to one with a short, turned-up nose that will catch rain like a pair of funnels unless tucked between the fore legs. Besides, the long-nosed pig is less apt to choke or wheeze itself to death than the other.

In regard to Berkshire noses, Hon. A. B. Allen, of New York, in a private letter says: "I prefer them as in portrait of Windsor Castle, (See Volume IV. American Berkshire Record) and thin on the jowls. But tastes differ as to these, and I say let each one follow his own fancy in breeding."

THE STANDARD OF EXCELLENCE.

HOW TO APPLY THE SCALE OF POINTS.

The question is sometimes asked, "To what extent does a black tail disqualify a Berkshire that is otherwise of good quality?"

Turning to the "Standard of Excellence," in Vol. II. of the American Berkshire Record, we find the Berkshire described in color as follows: "Black, with white on feet, face, tip of tail and an occasional splash on the arm." The value attached to these markings is four points in one hundred. A Berkshire, therefore, with four nicely marked feet, white in face and tip of tail white, would score four points for these markings.

Supposing that these four points of value may be equally divided among the six actual points of location, viz.: four white feet, face and tip of tail, we have the worth of each of these as two-thirds of one point. Calculating in this way a black tail would disqualify a Berkshire less than one point in one hundred points of value. It is evident, however, that the makers of the standard never intended it to be applied in this way, for if these color points in Berkshires are worth anything at all they are worth more than is given them by this method of calculation.

The true application of the standard, therefore, must be, not to reckon these color points separately, and deduct porportionately for the absence of any one or more of them, but to require that all be present, and then score them as a whole in accordance with the perfection in which they are shown in the animal being judged. For example, a pig with three evenly marked white feet and one that can hardly be called white at all, or with the white extending much further up the leg than the others, should not be rated as perfect in color points as one in which all four feet were nicely and evenly

marked. So, also, a pig with nearly half the tail white, should not score equal with one marked as required by the standard.

That this is the correct way of using the standard of excellence is shown by the mention of "an occasional splash on the arm." This is merely allowable, it is not an essential. At the time the standard was made, black tails were as frequent as white on the arm, but the standard does not say "tip of tail white, or occasionally black." We understand that it is always to be white, and a pig not thus marked should be disqualified at once. So, also, should a pig with one or more black feet, or a black face. If the standard is thus interpreted, its application in actual judging is made practicable, and when so used it is a valuable help in fixing the characteristic markings of the breed.

It has been noted as a marvel of perseverance, patience and skill on the part of the breeder, that he has given to the Berkshire of the present day these handsome markings. Is not, however, much of the success in this direction due to some natural law of embryonic development which tends to leave the extremities white, as in Hereford cattle and Clydesdale horses, and even tops and bottoms white also, as in the Herefords; or, in some light colored breeds, darker than the body color, as in Jersey cattle and Southdown sheep? At all events there is no doubt that white points in Berkshires may be very readily maintained if breeders will agree that black faces, black feet and black tails shall not be allowed in the breeding pens. Well-bred, well-formed and well-marked stock is now so abundant that in the effort to perpetuate the color marks there is no necessity for a selection so rigid as to cause the loss of any of the useful qualities for which Berkshires are particularly prized.

Among the Berkshires exhibited at the late Royal Agricultural Show in England were some not well marked in color. One especially was noted as "a good pig, but too black, *i. e.*, wanting the white markings on face and tail, although he had a dash of white down at the feet." Similar objection was made to one of a pair of sows, otherwise good. In reporting these the *London Live Stock Journal* says: "The color fancy may be carried too far, and it does not at all follow that the hams or flitches of a nearly self-colored pig should be inferior to those of a pig of the most approved marking; yet, inasmuch as certain markings are held to be characteristic of certain breeds, and are possibly correlated to the special qualities of those breeds, we cannot quite afford to give away such externals."

There seems to be no doubt that the absence of white points in Berkshires is often the result of a distant cross with another breed. These variations in color, although the most noticeable, are not always the most objectionable results of cross breeding, and they too, as variations in form or other important features, may not appear at once, and consecutively from one generation to another, but may remain latent for a time, cropping out often in individual animals of noticeable excellence or beauty in every other respect. We are therefore inclined to agree with those breeders who insist that a pig not having the color marks called for by the standard of excellence should be altogether disqualified.

AT WHAT AGE SHOULD SOW PIGS BE BRED?

As a rule, young sows should not be bred at an earlier age than eight or ten months. They will then have their first litters when they are twelve or fourteen months old. This general rule is subject to numerous variations, and for obvious reasons.

Many sows are bred when they are quite young because their owners have not the patience to wait until they are better grown. Besides it is troublesome to keep open sows safe from the boar when they are in season. Those, however, of the smaller and earlier maturing breeeds may often, without disadvantage, be allowed to breed when younger than others.

Unusually large or coarse sows are sometimes bred at an early age with a view to their becoming finer in form as they approach maturity. But with this fineness there is apt to be an impaired constitution in the sow and a lack of strength and vigor in the pigs.

It is thought by some that the earlier young sows are bred the better milkers they will become. Close observation, however, leads to the belief that no practical good is secured by such a course of management. Early breeding can never bring such marked improvement in the milking qualities of sows as may be secured by careful selection and proper feeding when young—see page 10. Adopting the latter course we are in line for improvements in other directions, while by the former method serious injury is often done the young sows. Breeding at a very young age certainly retards their growth, and it is doubtful if they ever afterwards reach the size they would otherwise attain.

The time of the year at which it is desired the young pigs should come often determines the age at which the sows are bred. For example, those farrowed in October or November are often bred at less than eight months old in order that their pigs may come early as possible the following fall; for if not thus bred when quite young they must be kept from the boar until twelve months old or over, to avoid their having pigs very late in the fall or in the midst of winter.

In selecting sow pigs for breeding we prefer those from early spring litters. Such will have the advantage of their first summer's growth on grass, while at the same time they are given whatever grain or other feed, according to location, may be thought best for their highest physical development. If well kept until they are nine months old they may then be bred. They will then have their first litters at thirteen months of age, and at a time of the year when the young pigs with their dams can soon be put on grass and have the benefit of this and good weather for rapid and healthy growth.

If the choice for breeding sows must be made from among pigs farrowed later in the spring, they may be bred at eight months old. Their pigs will then come when the sows are about a year old, bringing them as with the others to about the time grass starts in the spring.

Young sows selected from summer litters may also be bred when eight or nine months old, but those from fall litters had better be kept from the boar until they are at least twelve months of age, as above mentioned. This

may seem a long time to wait, but such sows seldom fail to produce first class litters and to rear them well. In fact, some of the most successful breeders prefer that all their young sows, so far as practicable, shall not be bred until they are about a year old, so that they may not farrow until they are about sixteen months of age.

For the Swine Breeder's Manual.

BERKSHIRE SWINE IMPROVED BY A CROSS WITH THE NEAPOLITAN.

I have seen this repeatedly asserted both by English and American writers; but where is their authority for it? I deny this in toto, and anyone can see how absurd and false the assertion is by the following facts.

First, the old Berkshire breed of swine was improved and made as perfect as at the present day, *upwards of a century ago*. For full particulars of this and their history, see my prize essay in Volume I. of the American Berkshire Record, pages 11 to 14.

Second. The first importation of Neapolitan swine into England of which I can find any acconnt was made by the late Lord Western, in the year 1830 or a year or two later. He used boars of this breed to cross on the old long, peaked nose, sharp-back, slab-sided and long-legged Essex of that day, and thus made the very perfect improved Essex which is continued to the present time. Now this, be it remembered, was many years later than the already perfect Berkshire.

In the summer of 1841 I visited the estate, in Berkshire, of the Right Honorable Shaw LeFevre, then speaker of the House of Commons. He was subsequently raised to the peerage, with the title of Viscount Eversley. He had some very fine Neapolitan swine, and they had been crossed with a few Berkshires in his vicinity. This cross was not liked at all by good breeders, and did not spread to any extent so far as I know. The objections to it were, that the progeny had rough skins, which looked as if they had been daubed with tar; the flesh was too fat for good hams and bacon; and the pigs lacked size, vigor, hardiness and activity. I saw some of this cross in 1842 which were imported into Kentucky, direct from England, via New Orleans. As the pigs grew up they were not liked at all by those who had purchased them, and I believe they were suffered to run out entirely, no good having ever come from them, as I have been informed.

The cross of the Neapolitan was a fortunate one with the old unimproved Essex, but with the Berkshire it was disastrous, and happily was not continued, at least by good breeders.

I have seen it advised by a breeder of Essex swine in the United States, to cross the Essex on the Berkshire, to further improve them. I assert that such a cross would ruin them for making superior hams and bacon, and should on no account ever be made. If any one thinks it would be an improvement, let him try it, and see how he comes out. The Essex is a valuable breed for making fat pork for salting, and also to cross on the sharp-backed, long-legged, unimproved swine of America.

The Berkshire *is perfection*, for the purpose for which he is bred, and that is to produce the choicest of hams, shoulders, and bacon. Now let him alone. He can not be improved by crossing him with any other breed, but he can improve many other breeds in various ways by crossing him on them.

There are some people, who, from ignorance or presumption, are eternally setting themselves up as improvers. If such will only study the excellent publications issued by the American Berkshire Association, and follow the advice given by them, they will be kept in the right path as to this superexcellent breed of swine, and be saved from all loss and regret at having attempted to make improvements for which they were totally unfitted and which indeed are impossible to be accomplished.

A. B. ALLEN.

New York, August 7th, 1883.

BETTER MANAGEMENT.

The alarming mortality which has at times prevailed among swine in some parts of the country has not been without good results; since feeders and breeders have thereby been led to pay more attention to the sanitary welfare of their stock. Signs of improvement in this respect are seen in nearly every direction, in the adoption of better methods of rearing and fattening hogs, whereby greater profits are realized and a better quality of pork products placed on the market.

The National Government, through the Department of Agriculture, has rendered the country a good service by its investigations into the causes of swine disease. The reports of the Commission show that swine are subject to many different and distinctly marked diseases. The most of these are usually avoided where farmers and breeders are induced to adopt the best known methods of management. We cannot change the laws of nature, neither can we violate them with impunity. The best we can do is to study them carefully and profit by what they teach.

The Department of Agriculture at Washington and the Boards of Agriculture in the different States, as well as the agricultural press throughout the country, are all constantly at work gathering facts and presenting aguments to show that greater care in the rearing of hogs as well as all kinds of farm stock is one of the most important reform movements of the age. But all that may be done in the way of investigation and counsel by Departments of Agriculture and the press will be of little avail unless breeders and feeders themselves persevere individually in carrying out the suggestions that may from time to time be made.

Good Testimony for Berkshires.—Mr. Lewis F. Allen, of Buffalo, New York, editor of the first 24 volumes of the Short-horn Herd Book, has kept Berkshire swine on his farm at Grand Island, in the Niagara river, since 1837—forty-six years in all, and he says, most emphatically, that they are the best of all other kinds. He has never bred them to sell, but kept them solely for his own farm use. Now here is an experience worth recording in favor of Berkshires, for Mr. Alllen is well acquainted with all other breeds in America, and is a first-rate judge of all our domestic animals.

THE SURVIVAL OF THE FITTEST.*

To the Editor of the American Berkshire Record:

In reply to your favor I would say, Yes! I am more than ever satisfied of the correctness of my statement made some months since in a prominent live-stock publication, to the effect that black hogs have for a considerable time been gradually and surely taking possession of the pens and pastures formerly sacred to the whites alone. The statement seemed to me so self-evident that I was satisfied no one could successfully controvert it, but as certain breeders of white hogs have severely criticised it, I will say that it is almost unanimously supported, not only by men who raise swine most largely, but by those who have the best opportunities for seeing the greatest numbers of them as shown at fairs, or as they pass through the great live-stock marts, en route to their final destination.

That such a state of affairs should exist now, when but a short time since thousands of men, who now have no others, considered black hogs very much off color, and would have scarcely accepted one as a gift, seems indeed remarkable, and I am not much surprised that some who have not kept awake to what was going on around them, now, when suddenly hit hard with remorseless facts, rub their eyes and dodge, while meeting the issue, by shouting "you're another!"

From the abundant proof that white hogs have of late years been crowded down and out by their colored rivals, I will quote the statement of John B. Sherman, who, for a good share of a lifetime, has been superintendent of the Chicago Union Stock Yards, and every year sees the millions of swine brought there from all points of the compass. He says that, for at least three years past, nine hogs out of ten received there, have been dark colored. My friend, Mr. E. W. Perry, whom most of your readers know as the former editor of the *American Stockman*, of Chicago, says: "It is my opinion, based upon a somewhat careful estimate from observation extended through eight or nine years of almost daily attendance in the live-stock markets, that not more than twenty-five per cent of the hogs now sent to market in the West show any considerable amount of white hair, and not more than five per cent. of the whole supply of late received here, are of any well defined white breed."

As a packing point, Kansas City follows next after Chicago. Mr. H. P. Child, the superintendent of the stock yards there, to test the matter, at my request counted 110 cars of hogs received from all directions, and found 491 head that were from two-thirds to all white, or, the ratio of 6.66 white to 93.34 black hogs in each hundred. He thinks that ten years ago they were about equally divided; in 1874 twenty per cent. were white, and that they have, since then, gradually decreased to the present proportion.

The superintendent at the swine department of the Kansas City Exposition says of the great number of hogs shown there: "In 1876 ninety per

* From the author of "Swine Husbandry"—a book which should be in the hands of every one engaged in rearing and feeding hogs—we have, in response to a special inquiry, this article on "The Survival of the Fittest."

cent. were dark; in 1877, eighty-five per cent; in 1878, ninety per cent. In 1879, eighty-five per cent; in 1880 and 1881 *all were black!*"

Secretary Shaffer, of the Iowa Agricultural Society, says, at the State Fairs of 1880 and 1881, about half the entries were of white hogs, but thinks four-fifths of the hogs of Iowa are of other colors

At the Kansas State Fair of 1871 there was but one white hog in 760 entries, and at the State Fair in Bismarck Grove, the afore-mentioned white hog was the only one I could find among 293 head that I counted.

In a letter from the Secretary of the Ohio Board of Agriculture, he writes: "Of the hogs exhibited at our fairs for two or three years past, about esventy per cent. were of the dark breeds; the white breeds seem to be rapidly on the decrease."

L. N. Bonham, a well known agricultural writer of Butler county, says, in Southern Ohio white hogs are so rare as to be curiosities.

The Secretary of the Minnesota Agricultural Society says, at their Fair last fall there were 58 dark and 5 white hogs. Mr. Clark, of the great Minneapolis Fair says, three-fourths of the hogs shown there were dark colored.

At the Illinois Fair of 1880 there were 314 hogs entered; 287 of them were of other than white breeds, and the ratio for some years has been much the same.

The advertisements in the leading farm and stock journals indicate that of those who have swine to sell for breeding purposes, ten are breeders of dark colored hogs for every one that offers white ones; in fact, all the testimony without bias indicates the same thing, and the query naturally arises, Why is this so?

In answer to it I would say here, as I have said before, in substance, that the men of the Western States care little for sentiment, but raise corn to feed to hogs, for the purposes of making pork and money out of it, and are possessed of discernment enough to select such stock as will best accomplish that result. They have by long years of experience, found the skin of a white hog too delicate to wishstand the stinging frosts, scorching suns, the alternating mud and dust, with the almost unvarying corn diet incident to our varying seasons and the system of farming pursued in a comparatively new country, where so many much-needed improvements and conveniences are yet to be provided. Nothing is more natural than that stock found to be lacking in stamina and hardiness, should, under such circumstances, be superseded by breeds possessing the essential qualities desired. It has been fully demonstrated that hogs with dark skins are much less liable to cutaneous diseases than the white ones, and, at the same time, have all their good qualities; hence the stock pens are filled with Berkshires, Poland-Chinas and their crosses, also a rapidly increasing percentage of "reds" and their crosses, while their fair-haired relatives, in spite of their many other excellencies, are rapidly becoming—elsewhere as in Southern Ohio—"curiosities" to the boys, who, a generation hence, will control the destinies of this country we now call ours.

F D. Coburn.

HERD-BOOKS AND RECORDS A NECESSITY.

The success that has for generations attended breeding in line, of horses, and cattle, has led breeders of sheep, swine, and chickens to give attention also to the character of the ancestors of their breeding stock. The greater the number of choice, and only choice, ancestors, the greater are the chances for the offspring to inherit the qualities sought for.

This law is so well established, and so generally accepted, that it has more or less influence over every breeder of choice animals. The more careful the breeder, the more will he prize the animal that has a rich inheritance of a long line of meritorious ancestors. This line cannot be kept accurately by tradition, or by verbal report. It must be done by a written record, handed down from generation to generation. For convenience and accuracy these family lines have been printed in book form, and cattle men call their book a Herd-book. Swine breeders call their book a Record. The Berkshire breeders have four volumes of their RECORD before the public. The second volume of the Ohio Poland China Record will soon be issued.

The work of recording animals and tracing lineage must be done with care, and yearly records kept by the breeders. Many breeders dislike to write, and dislike the additional labor of keeping records, and writing out records or pedigrees for customers, and consequently oppose the entire business of pedigreeing stock.

The man who is willing to take the pains to keep a record, which he is willing to submit to the inspection and criticism of the public, shows that he is at least willing to do that much toward careful breeding. The fact that he is careful over one thing, argues that he is probably careful in many things, which go to make up a trustworthy breeder. And, on the other hand, the fact that a breeder is careless in this vital matter, argues that he is careless in other things. It is easy for this latter class to show stock to a customer, and tell of some noted ancestors; but when this story, told in the stockyard or breeding pens to a confiding customer, is committed to paper, and sifted and traced beside other known and established records, its inconsistency and worthlessness become apparent. The day has about passed when buyers will be satisfied with such verbal pedigrees; they must be written so that they can be verified.

The work of keeping records is neither so difficult nor so complex as many would make believe. Some men make a bungle of keeping simple accounts; but that is no argument against book-keeping; nor is it likely that he who keeps no books is either more accurate or trustworthy than he who keeps his accounts carefully. Books may be falsely kept, and pedigrees may be falsely made; but if the false accounts are put under the inspection of an expert, the errors are easily detected. So with written pedigrees; they are open to public inspection, and criticism of experts, that the character of the pedigree for truth or falsehood will be established.

These written and recorded pedigrees promote integrity rather than deception, and they assist to establish a line of pure-bred stock. And it is further evident that a pure breed of animals cannot be kept without keeping accurate records of all the animals used as breeders.

A man who claims to have originated and built up a pure breed of animals, and yet has never kept a record of his breeding animals, must have a low estimate of the intelligence of breeders.

The man who has blazed his way through a forest, can easily trace his way back. If he cannot trace his way back, it is evidence that he never went over that ground, or is such a bungler as to be wholly unreliable as a leader. Bates was clear as to the route he took, and the animals used to establish the type of cattle, which have made his name a household word in every part of the world, wherever good cattle are found. When only the animals used as breeders are recorded, the volumes of the records do not become too numerous or bulky.

The work of pedigreeing all kinds of farm animals has been shown to be entirely feasible, and sooner or later every reputable breeder will need to record his stock.

L. N. BONHAM.

FEEDING VS. SHIPPING CORN.

American farmers would find it to their pecuniary advantage were they to feed more of their corn to meat-producing animals on their own farms, rather than allow it to be shipped to other countries there to be converted into meat. The great bulk of American corn is fed at home, and there is no good reason why it should not all be disposed of in this way. The profits in feeding would thus all accue to American farmers, and the difference between the cost of transporting the corn in bulk and that of sending the meat abroad would be saved. The pig is very generally conceced to be more perfectly adapted to the conversion of corn into meat than any other of our domestic animals, and among the different breeds of pigs none excel the Berkshires as economical producers of the most saleable meats, fresh or cured.

Parties seeking for safer investments yielding good and quick returns should bear these facts in mind.

PEDIGREE is the order of the day among the live stock of the farm, and certainly breeders are encouraged by fair prices to improve and develop their herds and flocks. Herd books have done much to foster the growing desire to keep pure breeds, and these records are indispensible when sales are to be made.—*London Live-Stock Journal.*

A GOOD RULE.

Mr. Wm. McCulloch, when buying Short-horns in England for shipment to Australia, was guided in his selections by the rule "Pedigree first, animal afterwards;" to which he added, "Unless both are good do not buy." A safe rule when thus improved.

GESTATION TABLE.

Showing the date when a sow is due to farrow, counting sixteen weeks from the day when she was served.

FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO
Jan.	Apr.	Mch.	June	May	Aug.	July	Oct.	Sept.	Dec.	Nov.	Feb.
1	23	1	21	1	21	1	21	1	22	1	21
2	24	2	22	2	22	2	22	2	23	2	22
3	25	3	23	3	23	3	23	3	24	3	23
4	26	4	24	4	24	4	24	4	25	4	24
5	27	5	25	5	25	5	25	5	26	5	25
6	28	6	26	6	26	6	26	6	27	6	26
7	29	7	27	7	27	7	27	7	28	7	27
8	30	8	28	8	28	8	28	8	29	8	28
		9	29	9	29	9	29	9	30		
		10	30	10	30	10	30	10	31		Mch.
	May		July	11	31	11	31		Jan.	9	1
9	1				Sept.		Nov.			10	2
10	2	11	1					11	1	11	3
11	3	12	2	12	1	12	1	12	2	12	4
12	4	13	3	13	2	13	2	13	3	13	5
13	5	14	4	14	3	14	3	14	4	14	6
14	6	15	5	15	4	15	4	15	5	15	7
15	7	16	6	16	5	16	5	16	6	16	8
16	8	17	7	17	6	17	6	17	7	17	9
17	9	18	8	18	7	18	7	18	8	18	10
18	10	19	9	19	8	19	8	19	9	19	11
19	11	20	10	20	9	20	9	20	10	20	12
20	12	21	11	21	10	21	10	21	11	21	13
21	13	22	12	22	11	22	11	22	12	22	14
22	14	23	13	23	12	23	12	23	13	23	15
23	15	24	14	24	13	24	13	24	14	24	16
24	16	25	15	25	14	25	14	25	15	25	17
25	17	26	16	26	15	26	15	26	16	26	18
26	18	27	17	27	16	27	16	27	17	27	19
27	19	28	18	28	17	28	17	28	18	28	20
28	20	29	19	29	18	29	18	29	19	29	21
29	21	30	20	30	19	30	19	30	20	30	22
30	22	31	21	31	20	31	20				
31	23								Oct.		Dec.
		Apr.		June		Aug.					
Feb.		1	22	1	21	1	21	1	21	1	23
		2	23	2	22	2	22	2	22	2	24
1	24	3	24	3	23	3	23	3	23	3	25
2	25	4	25	4	24	4	24	4	24	4	26
3	26	5	26	5	25	5	25	5	25	5	27
4	27	6	27	6	26	6	26	6	26	6	28
5	28	7	28	7	27	7	27	7	27	7	29
6	29	8	29	8	28	8	28	8	28	8	30
7	30	9	30	9	29	9	29	9	29	9	31
8	31	10	31	10	30	10	30	10	30		
	June		Aug.		Oct.		Dec.	11	31		Apr.
9	1	11	1	11	1	11	1				
10	2	12	2	12	2	12	2	12	1	12	1
11	3	13	3	13	3	13	3	13	2	13	2
12	4	14	4	14	4	14	4	14	3	14	3
13	5	15	5	15	5	15	5	15	4	15	4
14	6	16	6	16	6	16	6	16	5	16	5
15	7	17	7	17	7	17	7	17	6	17	6
16	8	18	8	18	8	18	8	18	7	18	7
17	9	19	9	19	9	19	9	19	8	19	8
18	10	20	10	20	10	20	10	20	9	20	9
19	11	21	11	21	11	21	11	21	10	21	10
20	12	22	12	22	12	22	12	22	11	22	11
21	13	23	13	23	13	23	13	23	12	23	12
22	14	24	14	24	14	24	14	24	13	24	13
23	15	25	15	25	15	25	15	25	14	25	14
24	16	26	16	26	16	26	16	26	15	26	15
25	17	27	17	27	17	27	17	27	16	27	16
26	18	28	18	28	18	28	18	28	17	28	17
27	19	29	19	29	19	29	19	29	18	29	18
28	20	30	20	30	20	30	20	30	19	30	19
						31	21	31	20	31	20

THE REGISTRY OF STOCK.

The following information in regard to the registry of Berkshires is compiled from the official transactions of the American Berkshire Association.

A number of the points on which information has at times been specially requested are more fully treated in the short articles which follow the rules of entry.

The advantages the RECORD presents to breeders have not escaped the notice and appreciation of the best live stock breeders and writers, on both sides of the Atlantic. Some of their expressions of opinion, setting forth its value and importance in promoting the interests of the meat producers of the country, will be found in the brief extracts arranged under their proper heading.

THE FIRST STEP.

If not already furnished with Entry Blanks send for a supply, and on them make your applications, without further delay, for registry in the Volume now in course of preparation.

FAMILY NUMBERS.

By common consent and almost universal custom, family numbers are placed after, instead of before, the names of animals, for example: Duke of Gloucester I., and not "1st Duke of Gloucester." The reverse of this practice in the naming of Berkshires might have been, for minor reasons, in a few cases an improvement, but for the sake of uniformity and general convenience all have cheerfully acquiesced in the present arrangement.

OMISSIONS WHICH CAUSE DELAY IN REGISTRY.

In applications for registry, dates of farrow, names of breeders,—and if imported—names of importers, names of owners, and satisfactory pedigrees of sires and dams should always be given. Applications deficient in any of these particulars are necessarily subject to delay.

RECORD NUMBERS IN EACH VOLUME.

Boars from 1—469 are recorded in Vol. I.; from 471—1505 in Vol. II.; from 1507—2465 in Vol. III.; from 2467—3305 in Vol. IV.; from 3307—4085 in Vol. V.; from 4087—4999 in Vol. VI. Sows from 1—1090 are recorded in Vol. I.; from 1092—3600 in Vol. II.; from 3602—5340 in Vol. III.; from 5342—6810 in Vol. IV.; from 6812—8370 in Vol. V.; from 8372—10,000 in Vol. VI.

THE USE OF RECORD NUMCERS.

Breeders are recommended when referring to registered animals to give the RECORD *number*, as well as the name. The number should always be placed immediately following the name, and without intervening punctuation, or the insertion of the abbreviation "No." Examples:

Prince 33; Black Prince II. 37.; Queen 804; Queen III. 814.

This method having been adopted by the Association, an animal so numbered is at once supposed to be registered in the AMERICAN BERKSHIRE RECORD.

RULES OF ENTRY IN THE AMERICAN BERKSHIRE RECORD.

1. Applications must be made upon blanks furnished by the Secretary, and should be signed or accompanied by a certificate of the breeder of animal, if such breeder is living.

2. An entry fee of one dollar for each animal recorded will be required.

3. The immediate descendants of animals heretofore recorded may be admitted to registry.

4. On and after Jan. 1, 1884, animals not the immediate descendants of recorded sires and dams shall not be admitted to registry except their ancestors can be shown to trace to recorded stock, and said ancestors shall also be recorded.

5. Unsound or unworthy individual animals should not be presented for registry. Such will not be admitted under any circumstances, where facts proving their inferiority are made known to the Executive Committee.

6. The use of duplicate names should be avoided.

7. In a pedigree, each animal known to be dead should be marked by an X *preceding the name.*

8. The breeder of an animal is the party owning the dam at the time of service, and dictating the cross.

9. In view of the fact that the value of a pedigree depends largely on the character and standing of the party or parties who bred and reared the animals represented therein, it is a matter of no small importance that the name of the breeder of every animal mentioned in each pedigree be given. *This, if known, should never be omitted.* Frequently the breeder's name is absolutely necessary for the proper identification of the animal.

10. Each change of ownership of recorded animals must be accompanied by a transfer signed by the former owner and a fee of 25 cents. This transfer will be placed on file for publication, and a certified copy furnished by the Secretary to the buyer.

11. With a view to assisting breeders in keeping private records of the stock they sell, the Association has published Blank Forms for Pedigrees. These are bound in sets of one hundred, with stubs for memoranda. In order to bring them within the reach of all, they are sold at the low price of $1.00 per set, post-paid.

12. The price of Vol. I. is $3.30 post-paid; that of Vol. II., $5.00 post-paid; and of Vols. III., IV. and V., $3.00 each post-paid. Volumes I. and II. will be sent, if ordered at same time (although both need not go to the same address), for $8.00 post-paid, the money to accompany the order. Volumes I., II. and III. will be sent on the same conditions for $10.00. Volumes I., II., III. and IV., on the same conditions for $12.00; or the entire five Volumes for $15.00.

13. Remittances may be made by draft, P. O. Order, or Registered Letter. Do not remit by private check on your local bank, *unless you include in the amount enough to cover exchange—usually 25 cents.*

Address, PHIL M. SPRINGER, Secretary,
Court House Square, Springfield, Ill.

UNPEDIGREED ANIMALS.

An esteemed correspondent and patron of the RECORD writes in regard to an exceptionally fine Berkshire sow which he desires to have recorded. He represents her as having all the appearance of being a pure bred animal, but fails to furnish her pedigree. Yet he expresses a hope that some arrangement may be made whereby she and her progeny can be admitted to the RECORD. He says, "Being in sympathy with your Association, it would give me great pleasure to patronize it altogether and aid you, but until I can get this sow entered my influence is impaired. I believe I am warranted in saying I give more attention to Berkshires than any one in this section of the country, and so long as the sow at the head of my herd is unregistered, it is useless for me to urge my patrons to register their pigs, or to buy only registered pigs."

Occasionally we have similar requests from other parties. We can readily see that from the standpoint of the writers there should seem to be good reasons why such animals should be recorded, but if arguments were needed to show why animals without pedigrees should not at this time be admitted to the RECORD, the following suggestions could be enlarged upon:

1st. The admission of even one such animal for one man would render the Association liable to be importuned upon all sides for the admission of others in like condition.

2d. It would scarcely be possible, without incurring greater expense than the end would justify, to determine the worthiness of such animals in other respects; as the employment of special agents would be necessary, whose duties it would be to personally inquire into each case.

3d. Parties who have heretofore complied with all the requirements of the Association for the admission of their stock, would feel aggrieved should others be specially favored in this regard.

4th. Breeders very generally having learned to rely on the impartial enforcement of the rules, the Association could not afford to do anything that would tend to alienate the confidence of breeders or impair its usefulness. It had better sail on with the motto "Honor Bright" at the masthead, than to go aside for present gain and thereby ultimately fail.

5th. The admission of unpedigreed animals at this day would be unsatisfactory to the great majority of breeders, including even those who do not now record their stock.

6th. The admission of unpedigreed stock would not place it on an equality in public estimation, with stock whose ancestry is already known through the RECORD. The influence of this Association is greatly overestimated if it is supposed that it could make unpedigreed animals popular by the endorsement which their admission to the RECORD would give. Instead of helping such to any great extent, it would in a far greater degree injure the stock already admitted.

7th. There are comparatively, few pure bred Berkshires in the country but are or can be recorded and if the present rate of advancement in public opinion continues, it will soon be hard to find pure-bred stock of any of our more important domestic animals that cannot show a *public* registry of its breeding. Recorded stock being thus available to start with, there is less excuse than formerly why animals of unknown ancestry should now be used in founding new herds.

PEDIGREE RECORDS.

Upon the amount of time and research required in collecting and verifying the pedigrees heretofore published, it is needless to dwell. Scarcely a breeder of any note but has been brought to realize the difficulties attending a work of the kind, from his own experience when attempting to prepare pedigrees for registry. The missing links are unnoticed until a close examination is made with a view to publication, when in many cases the desired data cannot be found, simply because no methodical effort has been made to preserve the information now required. Many parties who had never before considered the matter, and a greater number of others who for years had desired more definite and complete pedigrees of the animals they purchased than it had been customary to give or accept, have been led by the experience above mentioned to look upon the RECORD as an invaluable aid in their attempts to improve and perpetuate in its purity the stock of their choice Moreover they find the RECORD saves them much time formerly spent in writing out detailed pedigrees to be furnished with the animals sold. It insures against loss of data once known and clearly stated, and prevents liability to errors or discrepancies either in dates of farrow or names and breeding of animals. It protects buyers to a great extent from the impositions of designing dealers or breeders, and at the same time saves men of well known integrity and skill as breeders the humiliation of hearing false claims made to the possession of animals from their herds by unreliable parties.

LONG NAMES.

By common consent among breeders and patrons of the RECORD long names in pedigrees are declared a nuisance. The Association has often been requested to adopt a rule whereby ambitious parties will be prevented from incorporating in the name of an animal its pedigree for one or more generations, or an advertisement of the herd or farm from which it comes. While the Association prefers not to attempt a remedy of this evil in the manner suggested, it does earnestly recommend that names reasonably short be chosen. We are satisfied from correspondence reaching this office, that long names of the class alluded to are in many cases an injury to the sale of stock in whose pedigree they appear. Parties who wish to popularize their herds will do well to heed the admonition here given.

THE ORIGIN OF BERKSHIRE SWINE.

The most exhaustive treatise ever written on this subject will be found in Volume I. of the AMERICAN BERKSHIRE RECORD. It was prepared for the Association by Dr. H. J. Detmers, so well known as a veterinary writer, and for the thoroughness with which he goes to the bottom of any subject he undertakes to handle. A perfect knowledge of the early history of any breed of domestic animals must enable us to determine to a great extent the tendencies of any given course of breeding in their descendants of the present day. To the careful, thoughtful breeder of Berkshires, the treatise in Volume I. on the origin of this favorite breed, will be of special interest and value. The same volume contains also the Prize Essay on the Origin, Breeding and Management of Berkshires, written by Hon. A. B. Allen, of Flushing, New York.

SALE REPORT BLANKS.

In order to lessen the frequency of our calls upon parties owning recorded stock, for information regarding animals bred by them from said stock and sold for breeding purposes, suitable blanks have been prepared.

Breeders are respectfully requested to give upon these the following facts in the case of each un-recorded animal disposed of during the past year (or if convenient during several years past): Name and postoffice address of purchaser, name, sex and date of farrow of animal, name of sire and name of dam.

After placing upon the blank the desired information, they will please sign the same as correct to the best of their knowledge and belief and return it to this office. Here it will be filed as reliable data for the compilation of pedigrees sent for registry by their customers. By compliance with the request here made, it is believed breeders will be able to give the facts more satisfactorily and with less inconvenience to themselves than if frequently asked to go over their private records for information in the case of individual animals. At the same time the papers thus placed in the hands of the Association will serve as barriers against fraud on the part of pretenders to the possession of pure-bred Berkshires.

WELL BRED SIRES INDISPENSABLE.

Thousands of dollars are lost to farmers and stockmen every year, by the injudicious selection or breeding animals. One of the most common mistakes in this matter is that of using sires of unknown ancestry. There is no longer any excuse for this. In the purchase of Berkshires, particularly, all who will may readily avail themselves of the advantages presented by the AMERICAN BERKSHIRE RECORD for securing well bred stock. In making additions to the herds already started, or in founding new herds, well advised breeders use no other than well bred pedigreed animals.

BLANK FORMS FOR PEDIGREES.

The great convenience of these forms to breeders, and the very moderate price at which they are sold, have made them popular wherever known. They are now in use by breeders of cattle, sheep and swine, are adapted to any and all breeds, and enable parties to keep an account of the sale and breeding of each animal sold. Each set contains one hundred forms. Price per set $1 00, post-paid. Sets of two hundred forms each, with special headings, so that every pedigree given advertises the herd from which it comes, will be gotten up at $3 00 per set, post-paid.

RULE AT THE FAIRS.

"Swine in the Berkshire Class shall not be recognized as eligible to entry, unless they trace to animals recorded in the AMERICAN BERKSHIRE RECORD, or the exhibitor furnish in writing, at time of entry, equally satisfactory evidence as to purity of breeding."

The foregoing has been made a standing rule governing entries of Berkshires at fairs by some of the leading State and county fair associations.

A careful reading of this rule shows it to have been framed with a view to the best interests of the exhibitors of pure-bred stock. The registry of their animals by exhibitors is not made an imperative condition of their being allowed to compete for the premiums. Evidence of purity of breeding equally satisfactory to that furnished by public registry is all that is required. An exhibitor who has no satisfactory showing that his stock is pure bred, as claimed, has no just cause of complaint when it is not allowed to compete in pure-bred classes.

AMERICAN BERKSHIRE RECORD.

WHAT IS SAID OF IT BY THE PRESS AND BY LEADING BREEDERS OF BERKSHIRES, ON BOTH SIDES OF THE ATLANTIC.

To the swine and pork producer, the latest feature of importance affecting their specialties, is the attention now given to the subject of pedigrees in breeding. All must admit, whatever may heretofore have been their views, that pedigree in swine has at this day become a most important factor in the successful breeding and selling of these animals—more especially is this the case with Berkshire swine. That much more rapid progress can be made in the improvement of any breed of animals by careful attention to pedigree in mating, need not be argued here.

The only question to determine as regards swine breeding is, whether or not the pedigreeing of this class of stock is practicable. As a most conclusive proof that it is, I beg to refer to the volumes of the AMERICAN BERKSHIRE RECORD.

The Association under whose supervision these volumes have been issued, has done more since its organization to improve and popularize this most valuable breed of swine than could have been accomplished in a lifetime—if at all—without the aids and advantages it has been enabled to present.

The pages of the AMERICAN BERKSHIRE RECORD will continue to be scanned by parties designing to purchase, hence all who have pure-bred stock for sale may readily see the benefits most surely to result from having the same recorded. J. H. PICKRELL, Harristown, Ill.

The American Berkshire Association has thus far received the support of the principal breeders in Canada and the United States, and will without doubt secure still greater confidence in the future. It is not intended that a fund shall be accumulated for the special benefit of the members, but rather that any surplus realized from record fees shall be used in such way as may be deemed most beneficial to the patrons of the work and the general interest of Berkshire breeding.

The price of registration, as well as of the RECORD, has been made so moderate as to be within reach of all breeders.

JOHN C. SNELL, Edmonton, Ont., Canada.

* * * Therefore how necessary it is that we preserve our pedigrees and show the breeding of our herds; and to do this the AMERICAN BERKSHIRE RECORD is a necessity. It supplies a want long felt by swine breeders. It is published by a corps of men who are entitled to our confidence and support. * * * * * * * *

At least one-half the inquiries to-day are for "Registered Berkshires." It may cost something now to register, but be assured it will return manifold before many years. JAS. M. KIRK, Salem, Ohio.

Herd Books for Cattle have proved to be of immense benefit in the improvement of stock. The RECORD will be of equal benefit in improving Berkshires, and before long a herd will be considered of doubtful purity unless recorded.

Another advantage of the RECORD is, that it is one of the best advertisements for a herd, and the cost is but a trifle.

CHAS. P. MATTOCKS, Portland, Me.

In view of the constantly growing popularity of Berkshires, great inducements are thereby offered to the breeding of spurious animals, the only safeguard against which is the AMERICAN BERKSHIRE RECORD.

Registration constitutes the best possible advertisement, since the larger the number of animals recorded the greater the interest awakened and the more extended becomes the circulation of the RECORD.

An early record enhances the value of a herd, as animals possessing a long line of well-bred ancestry invariably have the preference with purchasers, and the more promptly entries are made the quicker will one volume succeed another, bringing the animals entered sooner into public notice.

If all properly qualified Berkshires are registered, breeders and others can with safety materially improve their herds by selections from the AMERICAN BERKSHIRE RECORD.

As the superior advantages of our country and climate have enabled Short-horn breeders to so improve their originally imported stock as to create a demand for it at high prices in the land from whence it came, so it is in the power of Berkshire breeders to accomplish the same by breeding with skill and judgment and keeping accurate records in the AMERICAN BERKSHIRE RECORD.

No reliable home-bred Berkshire stock can emanate from any other source than that of animals recorded in the AMERICAN BERKSHIRE RECORD, since by no other means can it be publicly and satisfactorily ascertained that its ancestry has been carefully bred.

T. S. COOPER, Coopersburg, Penn.

The value of the RECORD to the Berkshire business, can not be overestimated. The Association, by its untiring efforts and the co-operation of many reliable Berkshire breeders in different parts of the country, has succeeded in gathering together much valuable information that never could have been obtained in any other way. Their work has been heartily endorsed on every hand, and the RECORD is now looked upon as a standard authority by all leading breeders of Berkshire swine in America and Great Britain. It has become as important a feature in the Berkshire business as the different herd books of cattle are in the several specialties they are intended to promote.

N. H. GENTRY, Sedalia, Mo.

The great importance of having only thoroughbreds of all domestic animals, and especially of the Hog, whether the object be to reproduce thoroughbreds or to cross upon the common stock of the country, is too well known to require comment.

It is very important to the few breeders of choice Berkshires in the South that they should have their best stock registered in the early volumes of the AMERICAN BERKSHIRE RECORD.

S. N. STEELE, Macon Station, Ala.

The subject of pedigrees is all-important to the breeders of PURE Berkshires, and in no other way can a full knowledge of one's stock be obtained than by the mode of keeping a record of pedigrees open to public inspection and criticism. The value of animals registered on the pages of the AMERICAN BERKSHIRE RECORD is considerably enhanced, and breeders may rest assured that every precaution is used to guard against the introduction of unworthy or unsound animals, so that the purchase of Berkshires from patrons of the Association may be fully relied on.

WILLIAM BRUCE, Columbus, Ga.

At the present day, when purchasers make their selections with greater care than formerly, it is a matter of no small importance to us that we place the breeding of our herds in the AMERICAN BERKSHIRE RECORD; that great public highway on which the progressive breeders of to-day go in search of new animals to cross upon their own stock, and where the beginners in the business are almost sure to make their first selections.

J. A. HOWERTON, Paris, Ky.

The announcement, "All Stock recorded in the AMERICAN BERKSHIRE RECORD," now so generally made in the advertisements of breeders, speaks volumes for the usefulness of the book.

To the Western breeders this most important aid in maintaining the breed in its purity, ought to be welcome, indeed. Our herds often are widely separated; they are colonies, or rather missionary stations, among the hordes of mongrels of low degree, by which they are environed. Again all are separated by many thousands of miles from the parent stock, so that should they lose their identity, or be contaminated by the stock they are so admirably calculated to improve, the herd can only be restored at a great outlay both of time and means. I wish not to be invidious, but it is from this home-bred and thoroughly acclimated stock that we must expect the greatest usefulness, whether we consider the subject from the standpoint of the professional breeder, or pork-maker.

Moreover, it is not unreasonable to suppose that the changed condition as to food and climate found here will produce corresponding variations in all our breeds of foreign origin, thus adding greatly to the cares of the breeder in making his selections. To avoid impure blood on the one hand, and to keep clear of hereditary taint and weakness on the other, the breeder must have that full knowledge of his stock which can only be furnished by a record of pedigrees open to public inspection and criticism. These are some of the reasons, briefly stated, why the enterprise of the American Berkshire Association is of special importance to the breeders of the West. It is for you to say *whether* it shall serve you to the full measure of its aims.

I would counsel our breeders not to delay in this matter. In the near future much credit will attach to stock whose ancestors have obtained a place in these the "early" volumes of the BERKSHIRE RECORD. Such herds will rank among the old, standard sorts, in which young breeders will delight to lay the foundations of their herds, and from which all breeders of Berkshires will esteem it a privilege to make additions to their herds.

Finally, the American Berkshire Association is truly national in its character and aims; it is patronized by the breeders of all sections, both in this country and Great Britain, and it is worthy of your fullest confidence.

E. M. SHELTON, State Ag'l College, Manhattan, Kansas.

The object of the RECORD is to preserve and put before the public the ancestral history of each animal registered therein, thus enabling the reader to see at a glance, what qualities any particular individual is likely to transmit.

It cannot be doubted that those principles, which are recognized ascorrect in the breeding of horses and cattle, will apply with equal force tothe breeding of Berkshire Swine. The same end is had in view, viz.: theobtaining of those qualities, which, in each, are considered most desirable. This can be done only by careful selection, judicious breeding *and the preservation of well authenticated pedigrees.* In no way can the latter be so well accomplished as by the use of the AMERICAN BERKSHIRE RECORD.

The cost of recording is but a *trifle* compared with the benefits to be derived from it in the near future. "Put money in thy purse," says Shakspeare, "Put money in thy purse;" and I know of nothing that will with greater certainty do this than the amount expended in the registration of really fine Berkshires; for the time is coming, yea, even now is, when the only stock that can be sold *at paying prices* is such as have *good pedigrees properly recorded* in the AMERICAN BERKSHIRE RECORD.

ALEX. M. FULFORD, Bel Air, Md.

It is to be hoped that the AMERICAN BERKSHIRE RECORD will at once be recognized as authority, and that it will become as indispensable in determining awards at fairs, so far as Berkshires are concerned, as are the English and American Herd Books in the awards to Short-horns.

HON. JOHN H. KLIPPART,
Sec. of Ohio State Board of Agriculture.

The undersigned desires to call the attention of breeders of Berkshires in Ireland to the success which has followed in America the public registration of Berkshire pedigrees. The leading breeders of England have also given a favorable reception to the work of the American Berkshire Association. It is unnecessary to say anything to intelligent breeders as to the advantages of public registration of the pedigrees of horses and cattle. * *

I can see no reason why similar results would not follow from the registration of Berkshires. * * * * * * * *

I bring these facts before the minds of Irish Berkshire breeders, who are not inferior to any in England or America for intelligence or success. I hope they will avail themselves of the opportunity now presented to them, so that their stock may be in a position to maintain the distinguished reputation it has so long held. Besides, as a mere advertisement, the entering of stock in a good Herd Book, or Record, will generally prove a good investment, as breeders and their herds are thus constantly brought under the notice of purchasers and breeders.

DAVID GLENN, Kilfennan, Londonderry, Ireland.

I would venture to submit, that if, through the difficulty of gaining information, we make our selections at hazard in the extremes of non-relationship, we risk a loss of the quality and appearance which is now our admiration; and still more certainly, if we make our selections in the extremes of close relationship, shall we be risking the loss of hardy constitutions and many other useful qualities.

A system of detailed pedigrees, as published in the AMERICAN BERKSHIRE RECORD, would place the desired information within the reach of all whose arrangements in the matter are likely to have any amount of influence on the future stock of Berkshires in the country.

HEBER HUMFREY, Shrivenham, Eng.

The interest taken in this country for some years past in Berkshire pigs, appears to be well sustained, if we may judge from the successful continuation of the Herd Record published by the American Berkshire Association. —*Cultivator and Country Gentleman*, Albany, N. Y.

A record of pure bred stock means simply system in breeding, and system is the only road by which perfection may be approached. Improvement in stock means profit to the producers and feeders, and he who can make twenty-five and thirty per cent. profit to the breeder over the common hog, by supplying an improved stock, is as fully entitled to the world's gratitude as the man who makes two blades of grass grow where one grew before.

The American Berkshire Record gives that favorite breed of swine a great advantage over all other breeds which have no record of their pedigree to refer to, by persons desiring pure blooded animals to breed from.—*The Kansas Farmer*, Topeka, Kans.

For conciseness, clearness, ease of examination and for general arrangement, the work is a model. There is no superfluity about it, yet it is so plain, that the way-faring man, though a fool, need not err in it. * *

Breeders may congratulate themselves that they have a complete record of convenient size and at a reasonable cost.—*Cincinnati Commercial*, Cincinnati, Ohio.

The high standing in this community of the gentlemen entrusted with the management of the Association is all the guarantee that breeders of Berkshire swine could desire. All are practical and extensive breeders of Berkshire swine, and fully appreciate the wants of the public.—*Daily State Journal*, Springfield, Ill.

The previous volumes of the RECORD are unsurpassed by any similar publications made, and each succeeding one grows better.—*F. D. Coburn*, Topeka, Kan.

The projectors of this enterprise are entitled to no little credit; and when we consider the obstacles they have encountered, all will pronounce their success well earned. From the fact that the BERKSHIRE RECORD is the pioneer record of swine, that it deals with the history of a race which had its origin in a foreign country many thousands of miles distant, some of these difficulties may be inferred. Happily, when the crucial test of experience has been applied, these obstacles have been removed, and the BERKSHIRE RECORD must now be considered outside the region of peradventures.

The American Berkshire Association, unlike many similar enterprises, is truly national in character, and is patronized by breeders of all sections both of this country and Great Britain. In addition to recording pedigrees, much useful work has been done in disseminating valuable information, in the shape of prize essays on the origin and diseases of swine.—*The Industrialist*, Manhattan, Kan.

The success of the RECORD shows its high esteem by breeders, and the increased value and rapid improvement in the stock proves its merits and importance.—*American Agriculturist.*

The American Berkshire Association is now incorporated and acting under the laws governing corporations in the State of Illinois. It has in the past done a good work in the encouragement of farmers and others in the improvement and perfection of the breeds of swine. It would be difficult to overestimate the value of swine to this country, and every improvement is one shared by the people at large. English authorities bear cheerful testimony to the superiority of American swine over that of any other part of the world. In a recent report the English Commissioners say: "Nowhere can such grand herds of swine be seen as in the maize States of the Union. You can see a thousand pigs without finding a bad one, and there can be no doubt that the swine in America is generally superior to that of England." Nor is there any doubt but that with care it can be still further improved. That is the object of the American Berkshire Association, and is certainly one to be commended. The book is very handsomely printed and substantially bound.—*Chicago Inter-Ocean.*

AMERICAN BERKSHIRE RECORD.—This is the fifth volume of this model work on pedigrees of pure stock, which is the acknowledged authority on Berkshire pedigrees everywhere. It is an invaluable guide to all in search of well-bred stock of this superior breed; for with this in hand the farmer can easily avoid the mistake of purchasing sires or dams of unknown history. This fifth volume, of 254 pages, in addition to the usual complex index to owners, giving the sex, name and number of the animals belonging to each, contains also a like index to breeders and several other improvements. In it the last number assigned to boars is 4,085 and the last to sows, 8,370. The Record grows steadily in favor with breeders, as the advantages it affords them become from year to year more apparent. The demand for recorded stock has never, we learn, been so great as at the present day, and the average quality of the animals now being bred shows a marked improvement over those of former years. This volume, like its predecessors, is printed on tinted paper and handsomely bound in cloth, with red-colored edges The five volumes of nearly 1,700 pages, containing a large number of valuable essays and other information, will be sent, post-paid, for $15. Application for the books and other information should be made to the Secretary, Phil. M. Springer, Springfield, Ill.—*Rural New Yorker.*

(Breeder's Gazette.)

TO THE BREEDERS OF BERKSHIRE SWINE.

The following circular is being sent out from the office of the American Berkshire Association:

DEAR SIR—At the last meeting of the American Berkshire Association the following resolution was adopted:

Resolved, That on and after Jan. 1, 1884, animals not the immediate descendants of recorded sires and dams, shall not be admitted to registry except their ancestors can be shown to trace to recorded stock, and said ancestors shall also be recorded.

At a late meeting of the Executive Committee, it was ordered that the secretary issue a circular reminding breeders and importers of the above contemplated change in the rules of entry, in order that all might be duly advised thereof. In compliance with this order the resolution is now brought to the attention of the parties interested.

Yours respectfully,

PHIL M. SPRINGER, Sec'y.

Springfield, Ill., June 1, 1883.

REMARKS.—In a former issue of *The Gazette* was published a petition from Berkshire breeders to the American Berkshire Association, in which were well set forth certain reasons why there should no longer be any discrimination in favor of foreign-bred animals presented for registry in the American Record. These reasons need not here be repeated at length. They amount to this: That for many years American breeders have imported from the best English herds, at great expense, the choicest animals to be found in those herds; that during the last seven years they have sustained a public record of the breeding of these late importations, as also of stock bred from importations of earlier days; that by means of this record the composition of every herd of any note in America is now readily ascertained, and that an examination of these herds discloses the fact that in them the very highest standard of breeding has been maintained. Why, then, should an enterprise, originating with and supported by Americans, any longer discriminate in favor of stock bred in other lands, particularly when that stock is no better than their own?

This petition came before the association at the time the policy of excluding from registry all American-bred animals not descended from recorded ancestors was under consideration. As will be seen from the foregoing circular, both questions have been settled by the adoption of a single resolution placing all animals, so far as the location of their breeding is concerned, on the same footing as regards their eligibility to the record.

Therefore, after the 1st of January, 1884, the door closes against all animals not tracing to recorded stock. Breeders and importers have yet seven months in which to record under the present rules. All who have really good stock, and who expect to aid in supplying the future demand for pure-bred Berkshires, will hardly allow this time to go by unimproved.

We believe the association has acted wisely in this matter. Certainly no one can complain of undue haste on its part in now putting up the bars against those who have, during all these years withheld their stock from registry. In view of the fact that Berkshires were already conceded to be the

purest-bred class of swine in the world, the association has done well in keeping the doors open so long as it has. The danger of admitting impurely bred animals would be less than in the case of newer breeds. By the delay a wider range of foundation stock would be secured and a better base for future breeding established; while the discrimination in favor of English-bred animals was calculated to encourage the importation, as well as the registration of animals bred in Great Britain.

It is not probable, however, that further delay will secure to American breeders any additional advantages. On the other hand, the change will give to the founders of the present pure-bred herds in America the encouragement and support due them for the aid they have rendered in developing the great meat-producing interests of the country.

While the effect may be to check importations for a time, it can hardly be supposed that the habit of importing, so long prevalent among Americans, will be permanently affected. It is evident, however, that English breeders who wish to retain their American trade will find it difficult to do so unless they place themselves in position to satisfy the popular demand for good, well authenticated and extended pedigrees, as well as for animals of special merit in other respects.

The founding of a Berkshire Association in England, and the publication of a record there, would do more to sustain and increase the demand for English-bred Berkshires than any other measures that English breeders could adopt. The existing difficulties in securing satisfactory pedigrees would in this way be obviated, since the work of collecting and collating the necessary details would already have been done prior to admission to the English Record. Such animals would doubtless find ready acceptance with American buyers, and also be admitted to the American Record.

We are confident that the publication of a Berkshire Record in England is only a question of time. An examination of the volumes of the American Record shows a growing disposition on the part of English breeders to avail themselves of its use in bringing their own herds into notice. For example, the animals in Vol. V. owned by Messrs. Humfrey, of Shrivenham, Stewart, of Gloucester, and Swanwick of Cirencester, constitute about three-sevenths of all the Berkshires recorded in the ownership of English breeders. Thus, with the leading breeders in England, as well as in America, the pedigreeing of stock grows in favor as a means of enhancing its value. Such stock, of whatever kind, whether horses, cattle, hogs or sheep, not only sells better, but can be used to better advantage. More being known of its tendencies in breeding, it may be mated with greater certainty as to results than in the case of animals of unknown ancestry.

We are always glad to note every indication of progress in methods among breeders and farmers generally, and a just appreciation of the herd books and records of the various classes of farm animals is one of those signs of advance which *The Gazette* is pleased to commend.

RIVERSDALE FARM BERKSHIRES

BRED BY

WM. JNO. WINTER, MASSIE P. O., CANADA.

Soliciting the patronage of American Breeders of Berkshire Swine, I beg to state that my herd consists of a few choice sows selected from the herds of John Snell's Sons, J. G. Snell & Bro., and H. C. Lang, and some nice specimens bred by myself. The fine young boar Royal Toronto 4577, stands at the head of the herd. He was sired by Russell Swanwick out of Royal Lady 8246 1st prize at Bath and West of England, and sired by Gloucester IV. 4017. Royal Toronto 4577 won 1st prize in the "under one year class" at the Provincial Exhibition at Kingston and at the Toronto Show in 1882 and his pigs have proved first-class.

I offer for sale a few nice pigs of Spring and July litters (mostly sows) also from the sow Sallie Stewart and sired by Knight of Gloster, 2nd at Royal, England 1882; also from Cantatric 9084 and Norah Clermont 9296, got by imported Royal Carlisle 3433, also Princess Bismarck got by Cadenzas Carlisle 4317. The last 3 sows bred to Royal Toronto 4577 by whom they had fine litters last Spring. All pigs accurately described so that purchasers may know what to order and expect.

Royal Toronto 4577 will be sold for delivery in December. A very fine yearling Boar of the Souvenier Strain for sale now.

WILLIAM JOHN WINTER.

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